



User Guide

IP65 All-In-One Fan-less Panel PC

17" IP17ID7T-M1-5RT

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American Industrial Systems, Inc.

<http://www.aispro.com>

The test results show that this device meets FCC rules. Those limits are set to protect residential areas from harmful emissions from the devices. This device will produce, use and radiate radio frequency energy. In addition, failure to follow the user manual in order to install or use this device might produce harmful interference with radio communication. Foregoing this information does not guarantee that this type of harmful interference will not occur in some special instances. The interference caused by this device to radio or television signals may be verified by turning the device on and off. Any changes or modifications to this TFT LCD would void the user's authority to operate this device.

Important Recycle Instruction:

Lamp(s) inside this product contains mercury. This product may contain other electronic waste that can be hazardous if not disposed of properly. Recycle or dispose in accordance with local, state, or federal Laws. For more information, contact the Electronic Industries Alliance at WWW.EIAE.ORG. For lamp specific disposal information check WWW.LAMPRECYCLE.ORG

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Introduction

This user manual is designed for American Industrial Systems, Inc. Included is a comprehensive overview of the systems designed by American Industrial Systems.

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Important Safety Instructions

This chapter also includes information on approval and interference inhibition of your unit. Please abide by the warnings and instructions on the unit and in the manual. Please read these instructions carefully before using the product and save it for later reference.

- ◆ Follow all warnings and instructions marked on the product.
- ◆ Unplug this product from the wall outlet before cleaning. Clean the product with a damp soft cloth. Do not use liquid or aerosol cleaners as it may cause permanent damage to the screen.
- ◆ Do not use this product near water.
- ◆ Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
- ◆ This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- ◆ This product is equipped with a 3-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. (For AC version only) Do not defeat the purpose of the grounding-type plug.
- ◆ Do not allow anything to rest on the power cord.
- ◆ Do not locate this product where persons will walk on the cord.
- ◆ Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock.
- ◆ Never spill liquid of any kind on the product.
- ◆ Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks and will void the warranty. Refer all servicing to qualified service personnel.
- ◆ Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - ◇ When the power cord or plug is damaged or frayed. If liquid has been spilled into the product.
 - ◇ If the product has been exposed to rain or water.
 - ◇ If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
 - ◇ If the product has been dropped or the cabinet has been damaged.
 - ◇ If the product exhibits a distinct change in performance, indicating a need for service.

The display system was built and tested by American Industrial Systems, Inc. in accordance to prescribed safety conditions, and in a safe condition.

In order to retain this condition and maintain safe operation, the users must abide by the instructions and warnings

- ◆ The electrical installations in the room must not violate the requirements of the local (country-specific) regulations.
- ◆ The unit must be used in accordance with these instructions.
- ◆ Pay close attention that there are no cables, especially power cables, in areas where ambulatory traffic may interfere.
- ◆ Only use the power cord supplied with the package. Don't use injured or damaged power cords.

2.1 Electrostatic Discharge (ESD)

A sudden discharge of electrostatic electricity can damage electrostatic-sensitive devices or circuit. Adequate packaging and grounding techniques are essential fundamentals to avoid damage. The following precautions should be always taken:

1. Deliver printed circuit boards in electrostatic-safe containers such as cartons, boxes or anti-static bags.
2. Keep electrostatic-sensitive parts in their containers until they reach an electrostatic-free station.
3. Follow adequate grounding when sensitive PCB's, components, or assemblies are in close vicinity of the unit.
4. Store electrostatic-sensitive PCB's in a protective packaging such as insulating foam.

2.2 Grounding Methods

Protect against electrostatic damage of the unit by taking the following preventative measures:

1. Cover workstations with approved anti-electrostatic material.
2. In order to guarantee that the operator is grounded, provide a wrist strap connected to the working bench.
3. Properly ground tools and equipment.
4. For extra protection use anti-electrostatic mats, heel straps, or air ionizers.
5. Handle electrostatic-sensitive components, PCB's, and assemblies with care nearby the case or the edge of the board.
6. Prevent contact with pins, leads, or circuitry.
7. Switch off power and input signals before plugging and removing connectors or testing equipment.
8. Keep the work area free from non-conductive materials such as ordinary plastic assembly aids and Styrofoam.
9. Use field service tools with conductivity, such as screwdrivers, pliers, and vacuum cleaners.
10. Always put drives, PCB's, and the like with the component-side down on the working bench.



2.3 FCC Statement

This equipment has been tested and found to comply with the requisites for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection from harmful interference when the equipment is operated in commercial environments. This equipment generates, uses, and radiates radio frequency energy, and if it is not installed and used in accordance with the instruction manual it may cause harmful interference to radiofrequency communications. Operation of this equipment in residential areas may cause harmful interference in which case the operator will be required to correct the interference at his or her own expense.




2.4 Electromagnetic Capability

The display systems has been designed for industrial use. The most recent version of the EMC guidelines (EMC Directive 2004/108/EC) are applied. If the users modify and/or add to the equipment (e.g. installation of add-on cards), then the prerequisites for the CE conformity declaration (safety requirements) may no longer be applicable.

2.5 Important LCD Information

CAUTION		
Read manual prior to installing the product. The operation of products depends on you reading and following the information in this manual. Re-check your work prior to operating the product.		
EVENT	EFFECT	PREVENTION
	Sunlight shines directly will cause the panel damage.	You should avoid placing the product under direct sunlight.
	If the product is close to the wet ground such as grassplot, the moisture between panel and glass will make the product malfunction.	You should avoid placing the product in wet environment.

Packaging List

Item	Description	Note
	1 User Manual	
	1 CD for Touchscreen Drivers & Tools	
	1 Power Cord	

Product Description

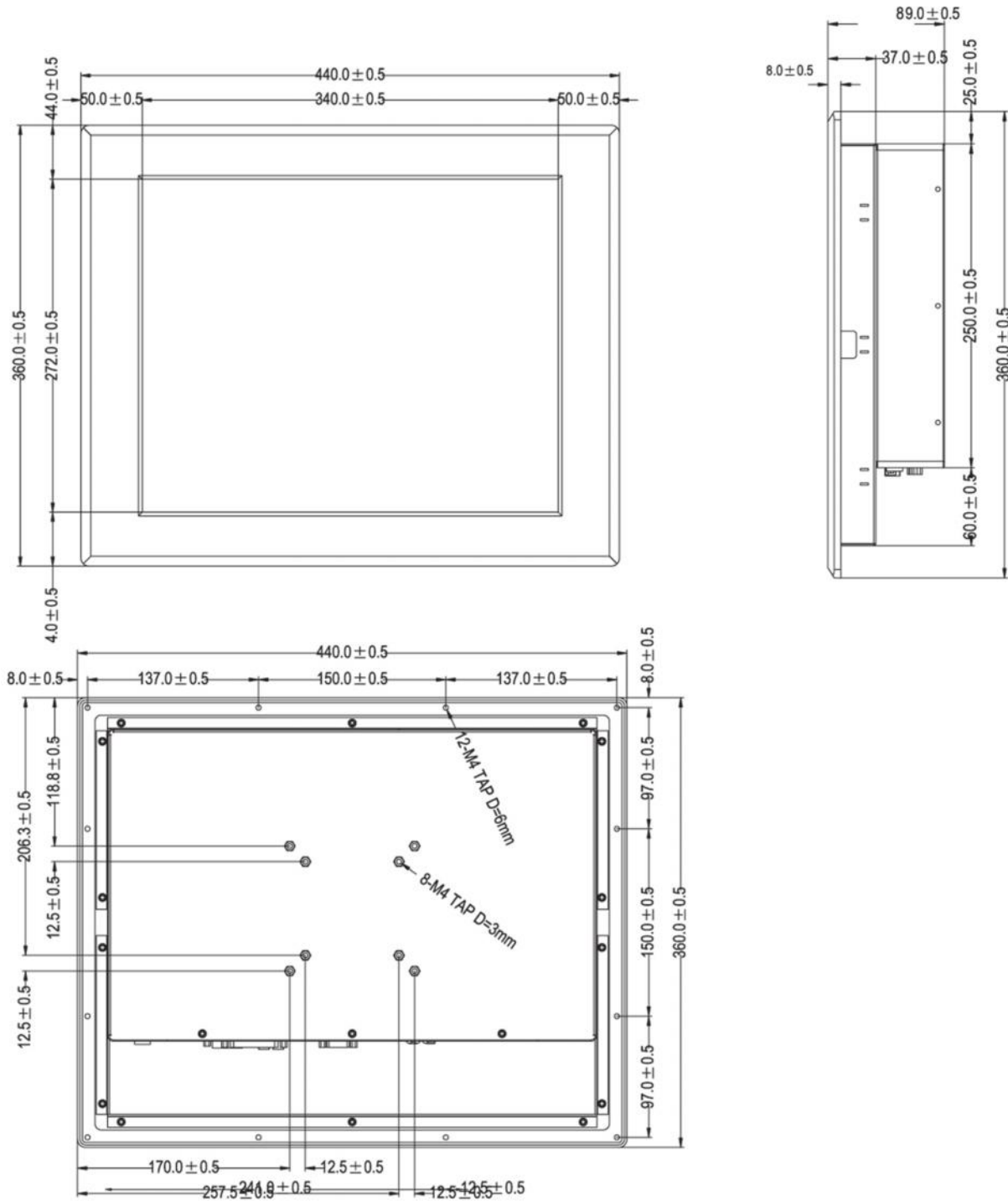
4.1 General Information

AIS pre-designed and open-based HMIs, 17" inch (1280 x 1024 SXGA) all-in-one panel PC computers or operator control panels with fan-less design and IP65/NEMA 4/4x rating designed which provide cost effective control interface which can be easily integrated into new and existing machinery installations, reduce development costs and shorten time to market, by utilizing industry leading touch screen display technologies and all-in-one systems-level expertise in operator control and monitoring applications within a variety of demanding environments and innovative product application areas. The AIS 10.1" IP65 all-in-one fan-less panel PC features high-performance Intel® Atom™ Dual Core Processor D2550 1.86 GHz, in an industrial-grade LCD flat panel with resistive touch screen technology and IP65 front bezel.

4.2 Features

- ◆ Flexible, reliable, and ruggedized for open platform HMI/SCADA
- ◆ Windows-based and PC-based with integrated high performance system processors, memory, and storage, USB RS232, RS422/485 and Ethernet ports
- ◆ Robust design with aluminum with NEMA 12, NEMA 4, IP52, IP54, IP65 ratings.
- ◆ Supports Panel, Wall, or VESA arm mounting.
- ◆ All steel construction designed for harsh and industrial environments
- ◆ Technical support for drivers, hardware, including troubleshooting procedures and general system issues
- ◆ Customer service and sales support for product selection, order management, and warranty status

Mechanical Drawings



Touch Screen Solution

6.1 Introduction to Five-Wire Resistive Touch Screen

The five-wire resistive touchscreens use a glass panel with a uniform resistive coating. A thick polyester coversheet is tightly suspended over the top of the glass, separated by small, transparent insulating dots. The coversheet has a hard, durable coating on the outer side and a conductive coating on the inner side.



When the screen is touched, the conductive coating makes electrical contact with the coating on the glass. The voltages produced are the analog representation of the position touched. The controller digitizes these voltages and transmits them to the computer for processing. The five-wire technology utilizes the bottom substrate for both X and Y-axis measurements. The flexible coversheet acts only as a voltage-measuring probe. This means the touchscreen will continue working properly even with non-uniformity in the cover sheet's conductive coating. The result is an accurate, durable and reliable touchscreen that offers drift free operation. The touchscreens are sealed against contamination and moisture. The coversheet is sealed to the glass substrate with an industrial grade caulk. This prevents wicking of fluid between the coversheet and glass. Also, the touchscreens are not air vented, thereby preventing fluid ingress through an air vent.

Brief Specifications:

Subject	Details
Input Method	Finger, gloved hand, or stylus activation
Positional Accuracy	Standard deviation error is less than 0.080 (2 mm)
Resolution	Touchpoint density is based on controller resolution of 4096 x 4096
Touch Activation Force	Typically less than 4 ounces (113 grams)
Light Transmission	HL products: 80% +/-5% at 550 nm wavelength Enhanced products: 60% +/-5% at 550 nm wavelength
Update touchscreen driver or new information. Go to www.elotouch.com	

Installing the Display

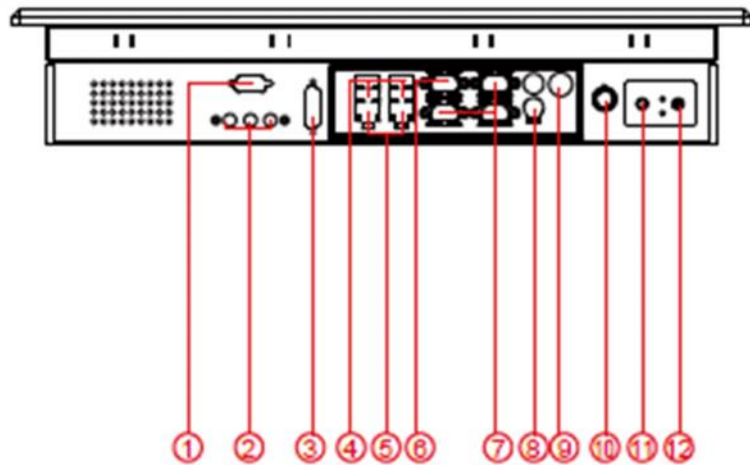
7.1 Signal Cable

7.1.1 VGA Signal Shielding Cable Connection



1. Plug one end of the 15-pin signal cable to the video signal connector at the rear end of the PC system and the other end of the cable to your military display.
2. Secure the connectors with the screws on the cable connector at both ends.

7.2 Input/output

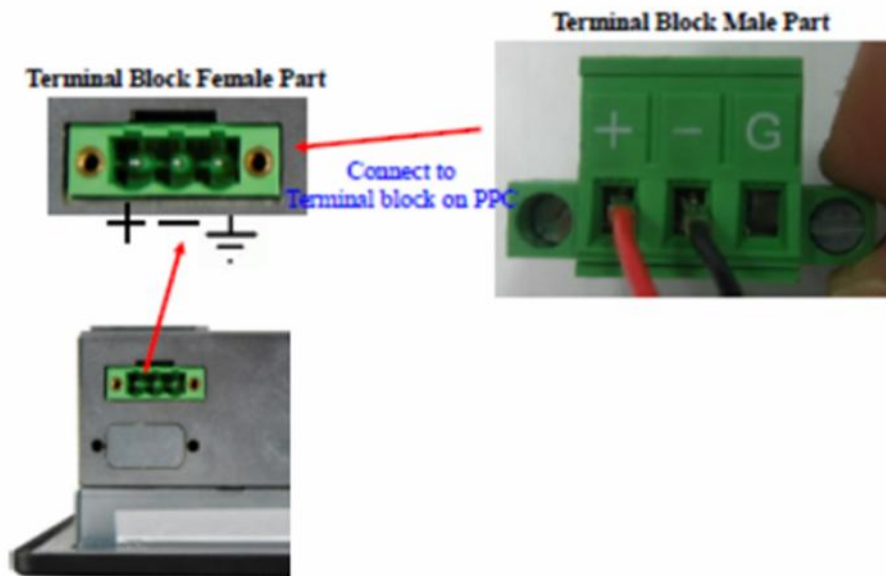


1. RS-232 Conn.(Optional)
2. Audio Jack
3. DVI (Optional)
4. USB
5. LAN
6. VGA

7. RS-232 Conn.
8. PS/2
9. DC-IN Lockable Power Jack
10. Brightness Adjustment Knob
11. Power On Button
12. Power Reset Button

7.3 Starting the Panel PC

1. Connect the power to 12 V DC Power Supply to 3 pins Terminal Block (Phoenix Type)



7.4 VESA Wall Mount Installation

This monitor conforms to the VESA Flat Panel Mounting Physical Mounting Interface standard which defines a physical mounting interface for flat panel monitors. It also corresponds with the standards of flat panel monitor mounting devices, such as walls and table arms. The VESA mounting interface is located on the back of your monitor.

To mount the monitor on an UL-listed certified swing arm or other mounting fixture, follow the instructions included with the mounting fixture to be used.

Motherboard

The ID70 SBC is integrated with Intel® NM10 express chipset, 17x17mm, and Atom D2700 Processor. Intel Atom Processor with 32nm low power design enables down to 50% less average power consumption and the chipset delivers up to 4x improvement in graphics performance and enables up to 50% higher data transfer bus speed rate.

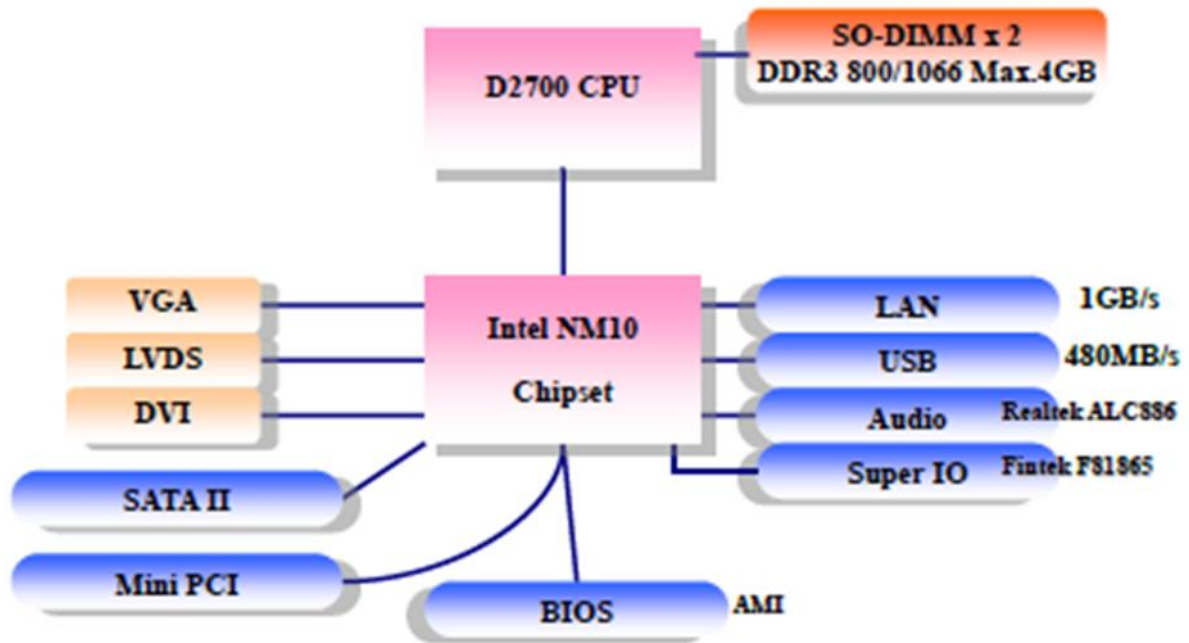
In peripheral connectivity, ID70 SBC features with two Mini-PCIe I/O ports, one PCI slot, two Serial ATA connectors, six Serial Port (Three Connector; Three Pin Header) and Eight Hi-Speed USB 2.0 connectors(Four Connector ; Four Pin Header). Additionally, ID70 SBC build-in a 12V DC-IN power adapter.

Thus, the ID70 SBC is designed to satisfy most of the applications in the industrial computer market, such as Gaming, POS, KIOSK, Industrial Automation, and Programmable Control System. Its compact design meets the demanding performance requirements of today's business and industrial applications.

Features:

- Mini-ITX Form Factor (170mm x 170mm)
- Supports Intel® Atom D2700 2.13GHz processor
- System memory up to 4GB DDR3 800/1066, SO-DIMM
- Intel NM10 Chipset
- Intel® Graphic Accelerator 3650 Integrated Graphics Engine.
- Dual Broadcom BCM57780 GbE controller
- 1 x PCI, 2 x Mini PCIe, 6 x COM, 8 x USB2.0, 2 x SATA, 8 x GPIO ports, 1 x DVI, 1 x LPT port

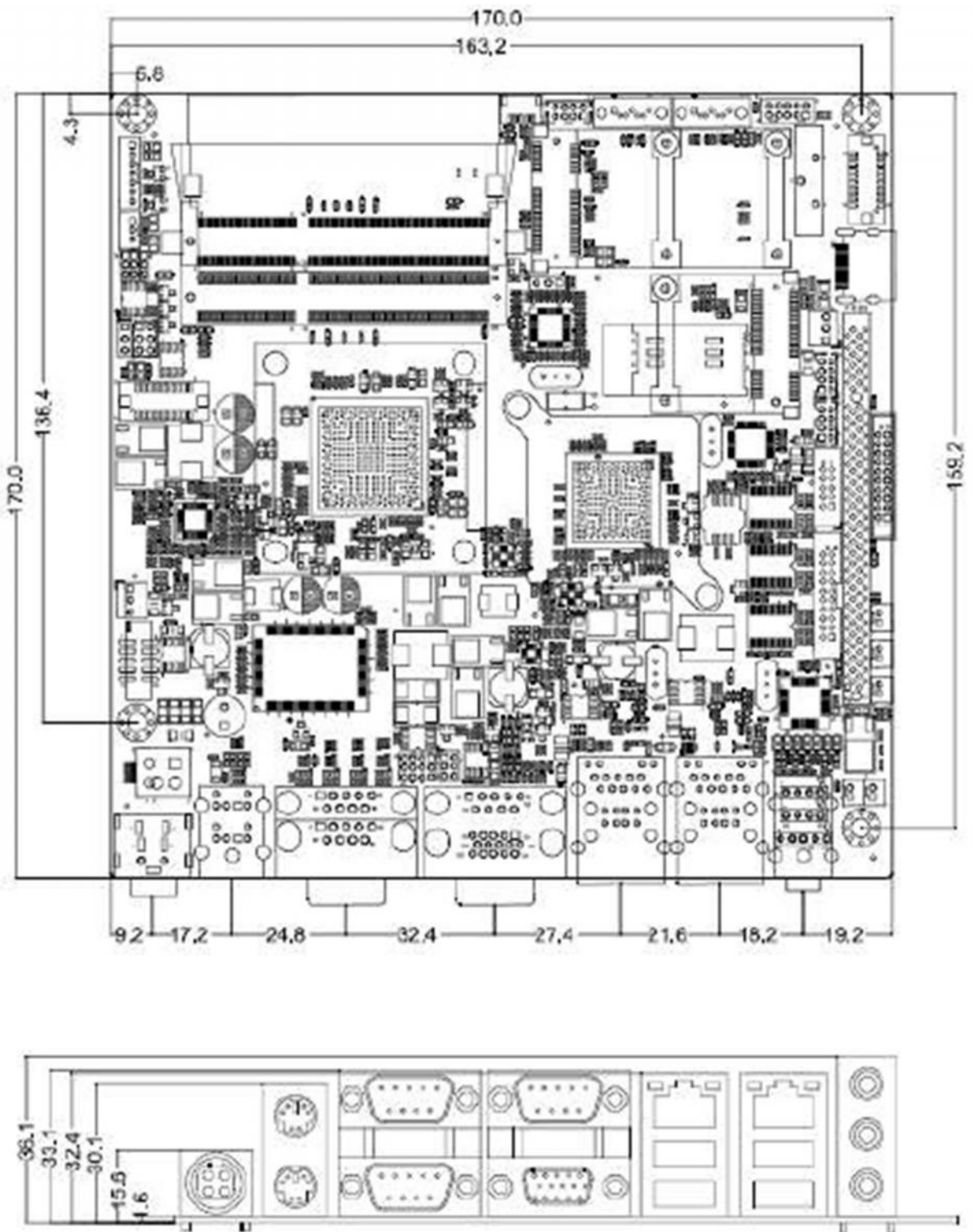
Function Block



8.1 Motherboard Specifications

CPU Type	Intel Atom Dual Core D2700 2.13GHz Processor
CPU Speed	2.13GHz
Chipset	Intel NM10
BIOS	AMI 16Mbit Flash
Graphic	Intel® Graphic Accelerator 3650 support DX10, OGL2.0
LCD interface	Single-channel 24 bit LVDS Up to 1440 x 900 @ 60Hz
Resolution	VGA mode : Up to 1920 x 1200 @ 60Hz DVI : 1920 x 1200 @ 60Hz
LAN	2 x Giga LAN (Broadcom BCM57780 GbE controller)
Memory Type	2 x SO-DIMM socket, supports up to 4GB DDR3 800/1066
Super I/O	Fintek F81865
Sound	Realtek ALC886 HD Audio Codec
USB	8 ports, USB 2.0 (4 x USB Connector, 4 x USB pin-header)
Edge Connectors	1 x DC-IN Jack (+12V) 1 x VGA out connector 2 x Gigabit LAN RJ-45 1 x RS232/422/485 2 x RS232 4 x USB connector 2 x PS2 1 x Audio Jack(Line in, Line out, Mic in)
On Board Pin-Header Connectors	2 x SATA connector for SATAI/II 3.0 Gb/s 1 x 10pins pin-header for Front Panel(2x5) 1 x 8pins pin-header for 5V/12V external power 1 x 3pins pin-header for CPU Fan 1 x 3pins pin-header for System Fan 2 x 2pins pin-header for 5V external power 1 x 2pins pin-header for 12V external power 2 x 8pins pin-header for USB (2X4) 1 x 10pins Digital I/O(2x5) 1 x 20pins pin-header for COM 5.6(RS232) (2X10) 1 x 10pins pin-header for COM2 (2X5) 1 x 4-pin Power-input connector 1 x 20pins Connector for LVDS 1 x 20pins Connector for DVI 1 x 3pins digital panel backlight brightness controller 1 x 7pins digital panel inverter 2 x 2pins pin-header for Speaker 1 x 20pins pin-header for LPT port(2X10)
Power Connector	Input: 4-pin Power-input connector
Expansion Slots	2 x Mini PCIe slot 1 x PCI slot
Form Factor	Mini-ITX
Dimensions	170mm x 170mm
Mechanical & environmental	Operating temperature: 0 deg. C to 60 deg. C Operating Humidity: 10 ~ 90% Relative humidity, non-condensing Shock: Operating 15G, 11ms duration Vibration: Operating 5 Hz~500Hz / 1Grms / 3 Axis Certification: CE, FCC, RoHS

8.2 Board Dimensions



8.3 Motherboard Installation

8.3.1 Memory Module (SO-DIMM) Installation

The ID70 Motherboard provides one 204-pin SODIMM slot. The socket supports up to 4GB DDR2 800/1066 SDRAM. When installing the Memory device, please follow the steps below:

1. Step.1. Firmly insert the SO-DIMM at an angle into its slot. Align the SO-DIMM on the slot such that the notch on the SO-DIMM matches the break on the slot.
2. Step.2. Press downwards on the SO-DIMM until the retaining clips at both ends fully snap back in place and the SO-DIMM is properly seated.

8.4 Input/Output Information

8.4.1 12V DC-IN

The Motherboard allows plugging 12V DC-IN jack on the board without another power module converter under power consumption by Intel Atom D2700 2.13GHz Processor in NM10 chipset.

8.4.2 Serial COM Ports

Three RS-232 connectors build in the rear I/O. One optional COM ports support RS-422/485. When an optional touch-screen is ordered with PPC, serial com port can connect to a serial or an optional touch-screen.

8.4.3 Internal VGA

The Motherboard has one VGA port that can be connected to an external CRT/ LCD monitor. Use VGA cable to connect to an external CRT / LCD monitor, and connect the power cable to the outlet. The VGA connector is a standard 15-pin D-SUB connector.

8.4.4 Ethernet Interface

The Motherboard is equipped with Broadcom BCM57780 chipset which is fully compliant with the PCI 10/100/1000 Mbps Ethernet protocol. It is supported by major network operating systems. The Ethernet ports provide two standard RJ-45 jacks.

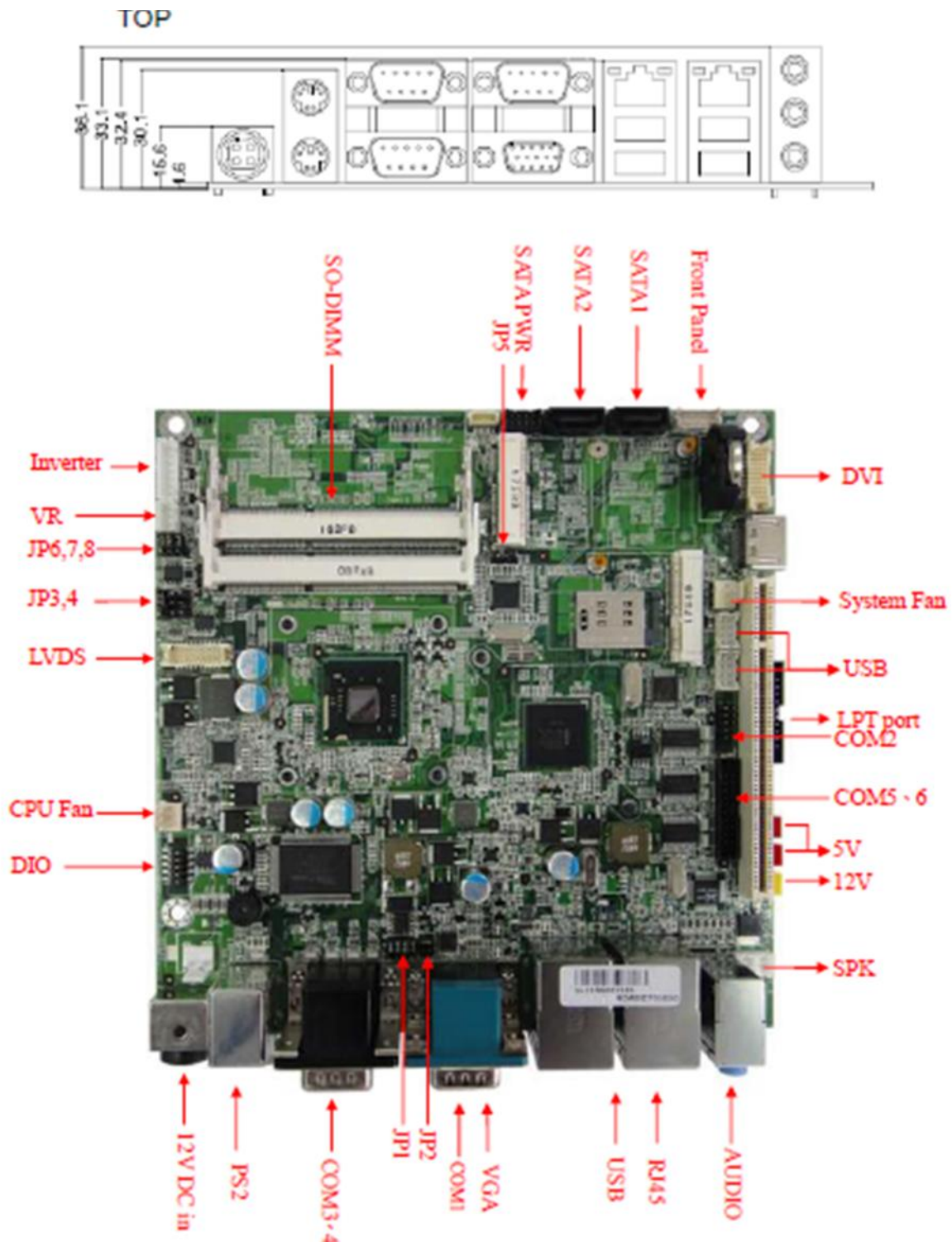
8.4.5 USB Ports

Eight USB devices (four ports with pin headers) may be connected to the system though an adapter cable. The USB ports support hot plug-in connections. We recommend that you should install the device driver before you use the device.

8.4.6 Audio Jack (Pin-header)

The Audio 7.1 channel capabilities are provided by Realtek ALC886 chipset supporting digital audio outputs. The audio interface includes Line-in/Line-out/Mic-in.

8.5 Jumpers and Connectors

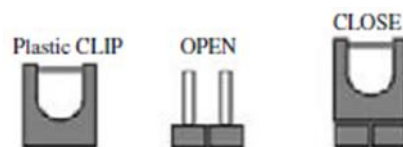


BOTTOM



8.6 Jumper Settings

A jumper is a metal bridge that is used to close an electrical circuit. It consists of two metal pins and a small metal clip with a plastic cover. To CLOSE, connect the jumper. To OPEN, leave the jumper off.



A pair of needle-nose pliers may be helpful when working with jumpers. If you have any doubts about the best hardware configuration for your application, contact your local distributor or sales representative before you make any changes. Generally, you simply need a standard cable to make most

connections. The jumper setting diagram is as below. If a jumper shorts pin 1 and pin 2, the setting diagram is shown as the right one.

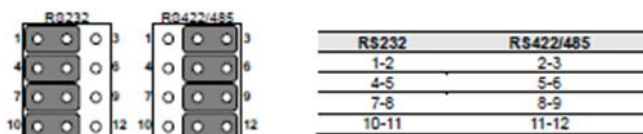


The following tables list the function of each of the board's jumpers.

Label	Function	Note
JP1	RS232 / RS422 / RS485 Selector	3x4 header , pitch 2.0mm
JP2	RS232 / RS422 / RS485 Selector	2x3 header , pitch 2.0mm
JP3	LVDS PWR Selector	2x3 header , pitch 2.5mm
JP4	Back Light PWR	3x1 header , pitch 2.5mm
JP5	Clear CMOS	3x1 header , pitch 2.5mm
JP6	PWM Level	3x1 header , pitch 2.0mm
JP7	PWM/DA	3x1 header , pitch 2.0mm
JP8	VR/Software	3x1 header , pitch 2.0mm

8.6.1 JP1: RS232/RS422/RS485 Selector for CON Port

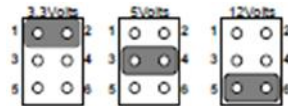
The jumper can be configured to operate COM1 in RS-232/422/485 mode. And the setting must correspond with JP2 settings.



8.6.2 JP2: RS232/RS422/RS485 Selector for CON Port

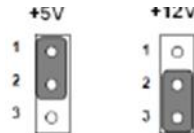


8.6.8 JP3: LCD Panel Voltage Select



Pin No.	Functions
1 Short 2	3.3Volts Selected
3 Short 4	5Volts Selected
5 Short 6	12Volts Selected

8.6.6 JP4: Back Light PWR



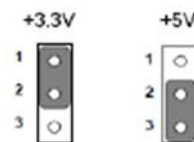
Pin No.	Functions
1 Short 2	+5V
2 Short 3	+12V

8.6.3 JP5: Clear CMOS



Pin No.	Functions
1 Short 2	Clear CMOS
2 Short 3	Normal

8.6.7 JP6: PWM Level



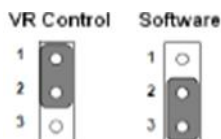
Pin No.	Functions
1 Short 2	+3.3V
2 Short 3	+5V

8.6.5 JP7: Brightness Control (DC/PWM)



Pin No.	Functions
1 Short 2	DC(VR)
2 Short 3	PWM

8.6.4 JP8: Brightness Control (VR/Software)



Pin No.	Functions
1 Short 2	VR Control
2 Short 3	Software

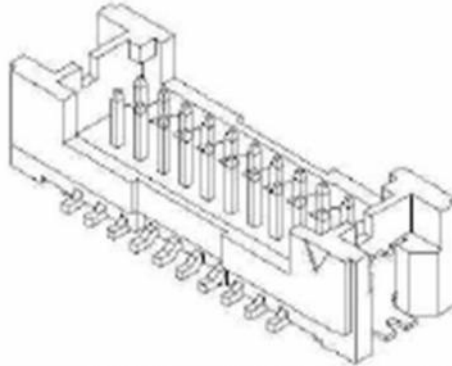
8.7 Connectors and Pin Assignment

The table below lists the function of each of the board's connectors.

Label	Function	Note
LVDS	LVDS LCD Output Connector	20DP-1.25V
CN16	Digital Panel Backlight Brightness Control	3x1 header, pitch 2.54mm
CN19	Digital Panel Backlight Inverter Power	7x1 header, pitch 2.54mm
COM2	COM2 for RS232	2x5 header
COM5 - 6	COM5 - 6 for RS232	2x10 header
USB	USB PIN HEADER	4x2 Pin Header
CPU_FAN	CPU Fan CONNECTOR	3x1 Pin Header
SYS FAN	System Fan Connector	3x1 Pin Header
PANEL1	System Function Connector	5x2 header ,pitch 2.0mm
DVI	DVI Output Connector	20DP-1.25V
12V	12V External Power	2x1 header, pitch 2.0mm
5V	5V External Power	2x1 header, pitch 2.0mm
HDD PWR	12V/5V External Power	4x2 header ,pitch 2.54mm
DC JACK	12V DC Jack	4 Pin Jack
DIO	Digital I/O	2x5 Pin header
SPK	Speaker(Right/Left)	2 Pin header
LPT	Printer Port	2x10 header

* Not Default Connector

8.7.1 CON1: LVDS Connector



Pin No.	SYMBOL	Pin No.	SYMBOL
1	GND	2	LVDS_TX0_DN
3	GND	4	LVDS_TX0_DP
5	GND	6	LVDS_TX1_DN
7	GND	8	LVDS_TX1_DP
9	GND	10	LVDS_TX2_DN
11	N/C	12	LVDS_TX2_DP
13	LCDVDD	14	LVDS_CLK_DN
15	LCDVDD	16	LVDS_CLK_DP
17	NC	18	LVDS_TX3_DN
19	LCDVDD	20	LVDS_TX3_DP

8.7.2 CN16: Digital Panel Backlight Brightness Control



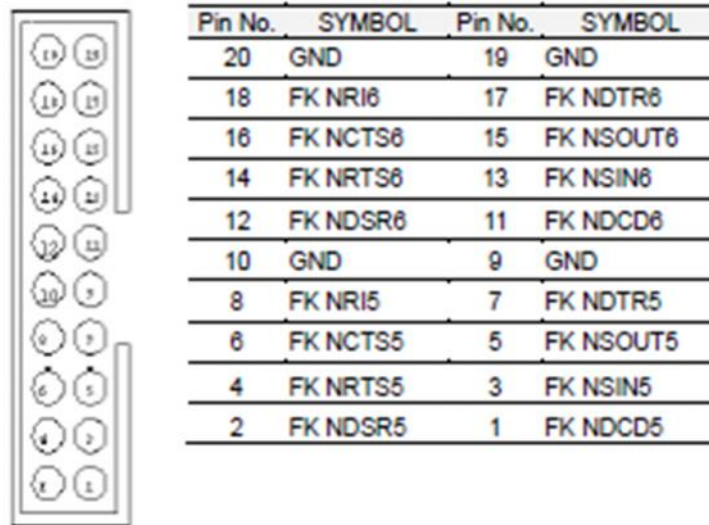
Pin No.	SYMBOL
1	VCC
2	Black Light Control
3	GND

8.7.3 CN19: Inverter Power

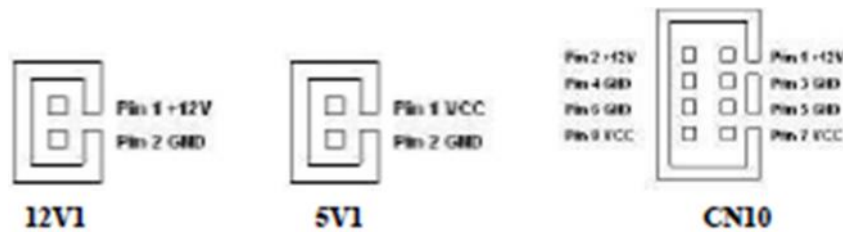


Pin No.	SYMBOL
1	+12V
2	+12V
3	+12V
4	GND
5	Black Light Control
6	GND
7	Black Light EN 5V

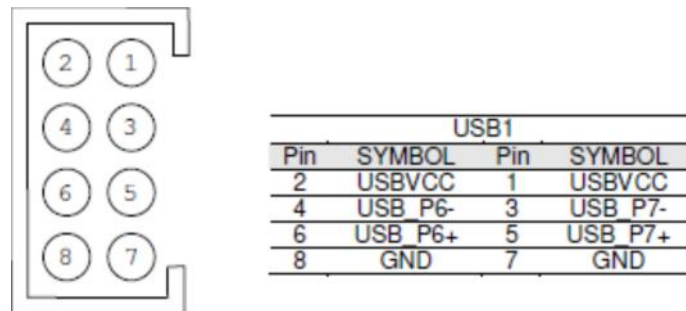
8.7.4 COM5-6: Dual Output



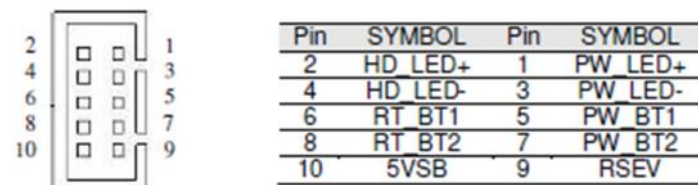
8.7.5 5V/12V/CN10: External Power



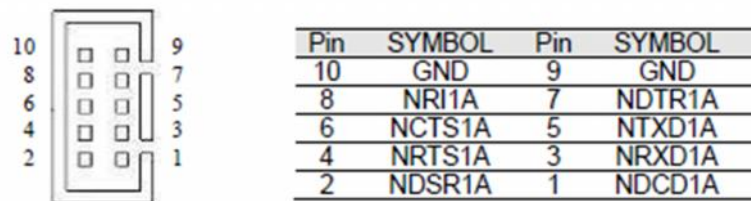
8.7.6 USB: USB PIN HEADER



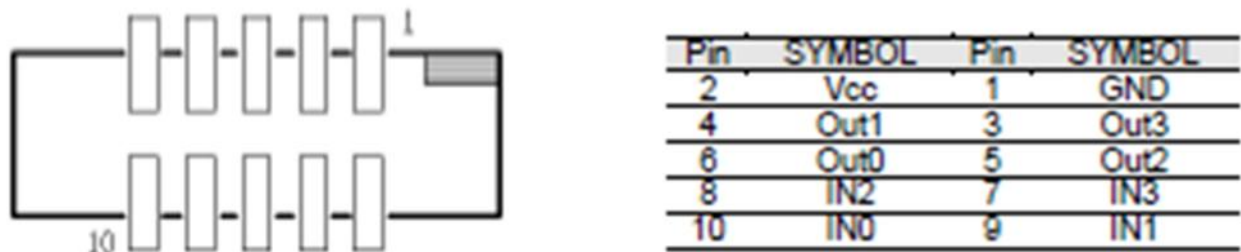
8.7.7 PANEL Connector: Front Panel System Function Connector



8.7.8 COM2: Serial port COM2



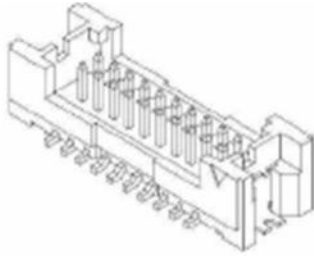
8.7.9 DIDO1: Digital I/O Connector



8.7.10 J2/J3: Amplifier



8.7.11 DVI1: DVI Connector



Pin No.	SYMBOL	Pin No.	SYMBOL
1	GND	2	TMDSB_DATA0-
3	GND	4	TMDSB_DATA0+
5	DVIC_LVDS_DET	6	TMDSB_DATA1-
7	DVIC_BKLTEN	8	TMDSB_DATA1+
9	DVIC_VDDEN	10	TMDSB_DATA2-
11	DVI_HOT_DETECT	12	TMDSB_DATA2+
13	LCDVDD	14	TMDSB_BLK-
15	LCDVDD	16	TMDSB_BLK+
17	+V5S	18	DVI1_DDC_CLK_R
19	+V5S	20	DVI_DDC_DAT_R

8.7.12 CPU: FAN CONNECTOR

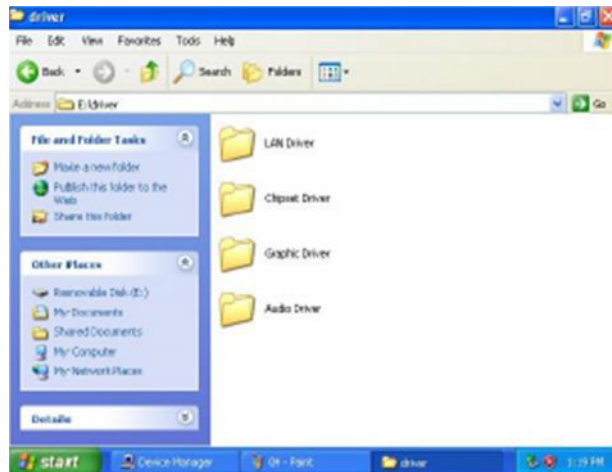


Graphic Driver Installation

9.1 Standard CMOS Feature

ID30 Motherboard is equipped with Intel NM10 Companion Device. The Intel Graphic Drivers should be installed first, and it will enable the “Video Controller” (VGA compatible). Follow the instructions below to complete the installation.

1. Insert the CD that comes with the Motherboard. Open the folder “Graphic Driver “.



2. Click on “setup” to execute the setup

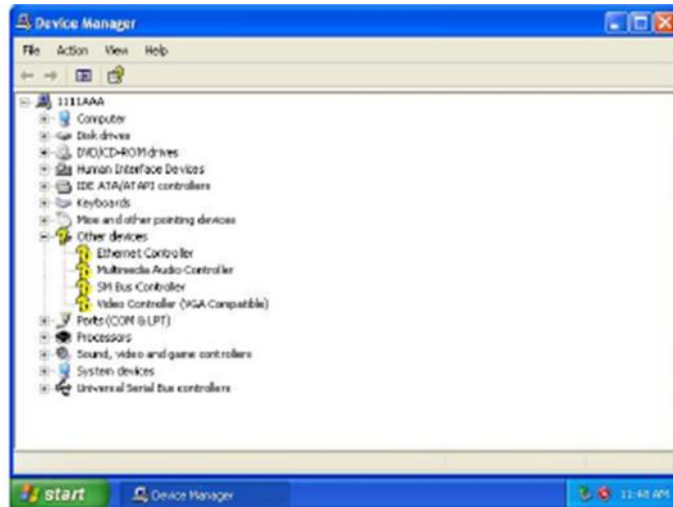
Name	Date modified	Type	Size
Graphics	12/27/2011 5:26 PM	File folder	
HDMI	12/27/2011 5:26 PM	File folder	
ICC	12/27/2011 5:26 PM	File folder	
Lang	12/27/2011 5:26 PM	File folder	
autorun	12/30/2008 3:31 PM	Setup Information	1 KB
DIFxAPI.dll	11/2/2006 7:21 AM	Application extens...	312 KB
Installation_Readme	12/20/2011 10:37 ...	Text Document	30 KB
Readme	12/20/2011 10:37 ...	Text Document	3 KB
Setup	12/13/2011 3:20 PM	Application	930 KB
Setup.if2	6/22/2010 2:21 PM	IF2 File	19 KB
Setup2.if2	9 2:15 PM	IF2 File	3 KB

Type: Application
 Size: 929 KB
 Date modified: 12/13/2011 3:20 PM

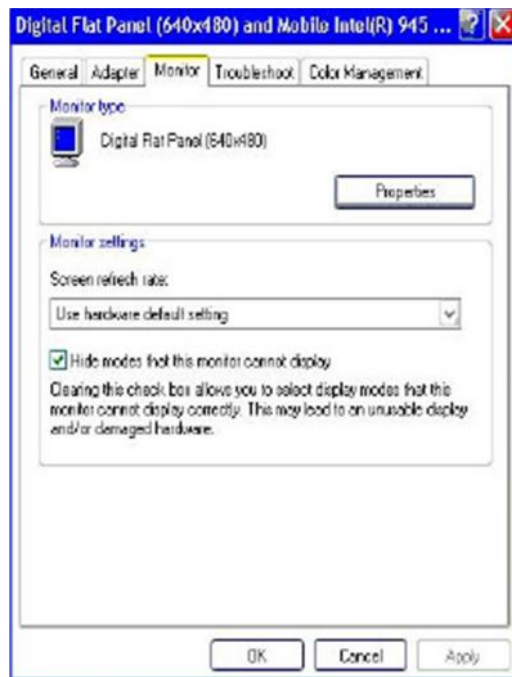
3. Follow the on-screen instructions.

9.2 Panel Resolution Setting

1. Right-click the desktop, and then click properties.
2. In the Display Properties dialog box, click the Settings tab.



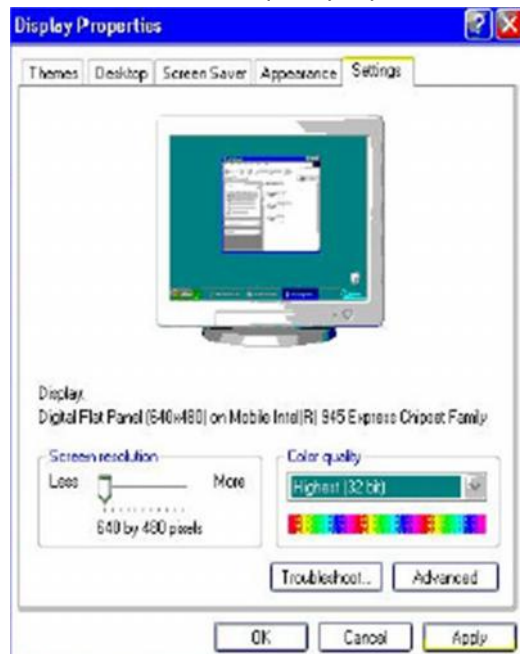
3. Click on “Monitor”



4. Click on “Hide modes that this monitor cannot display” to remove this option.



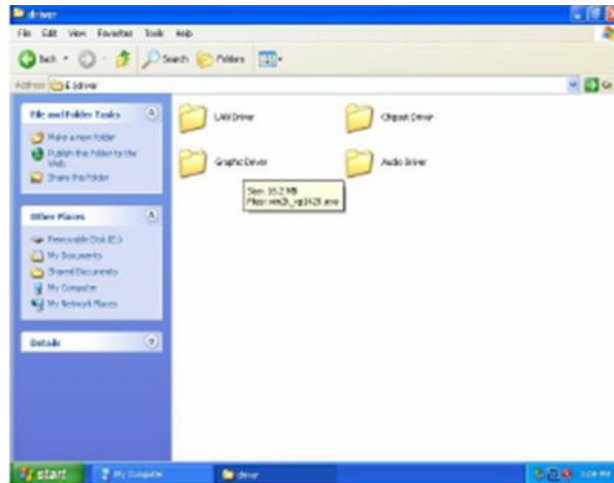
5. Click on "Setting," then choose 32bit color quality if you would like.



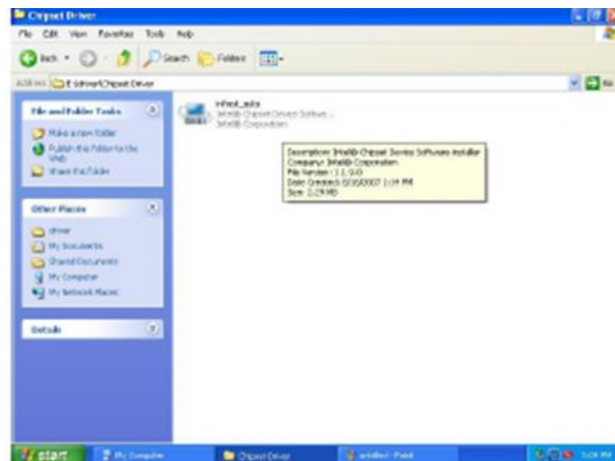
Chipset Driver Installation

10.1 Standard CMOS Features

1. Insert the CD that comes with the motherboard. Open the file document “Chipset Driver.”



2. Click on “infinst_auto.exe” to install the driver.



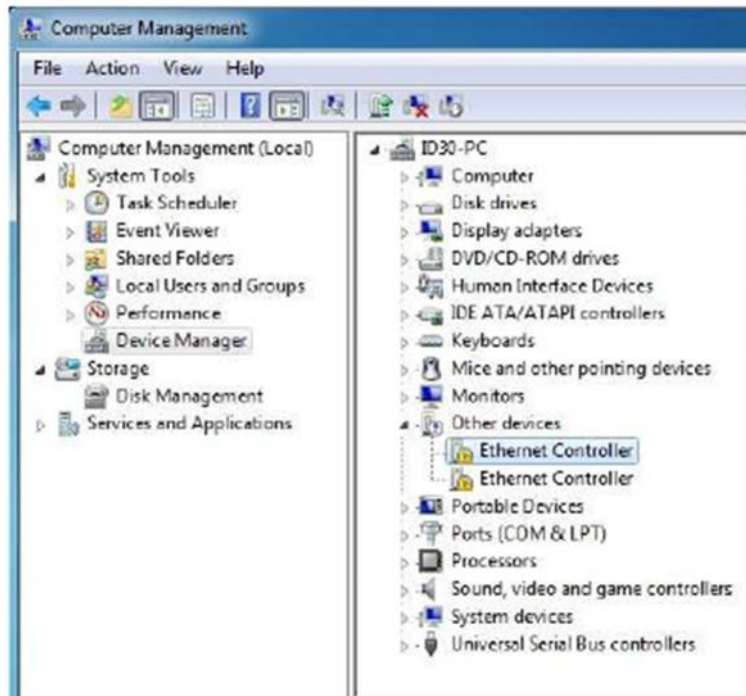
3. Follow the on-screen instructions.

Ethernet Driver Installation

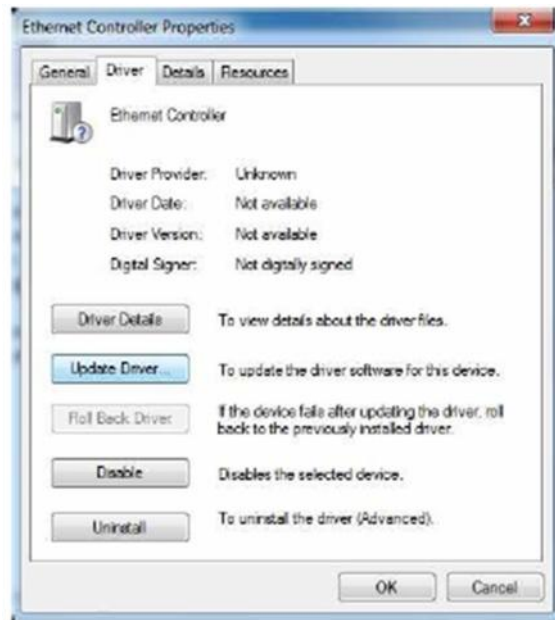
11.1 Installation of Ethernet Driver

Make sure which operating system you are using in the ID30 Motherboard before installing the Ethernet drivers. Follow the steps below to complete the installation of the Broadcom BCM57780 Gigabit Ethernet controller LAN drivers.

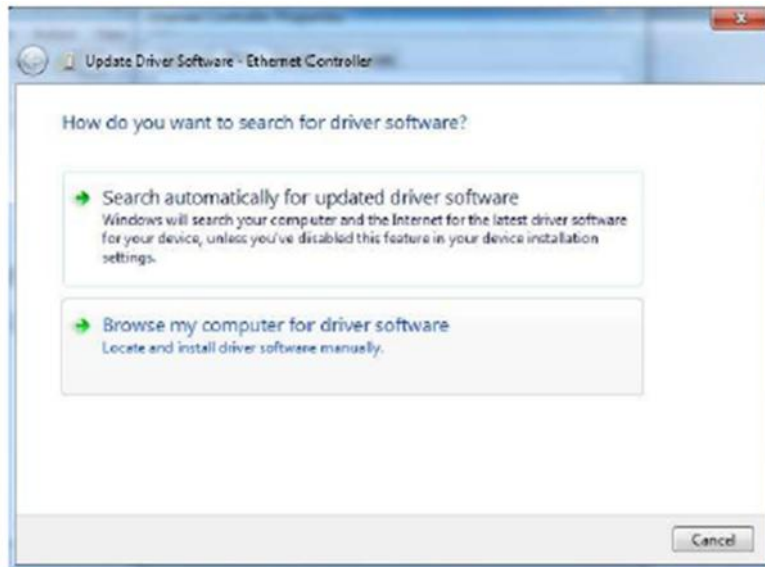
1. Right-click the desktop, and then click properties.
2. In the “Other devices” dialog box, click the settings tab.



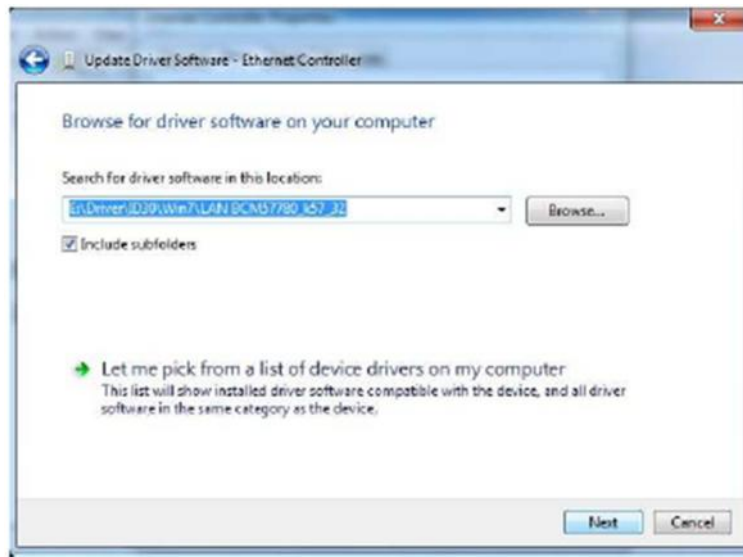
3. Click on “Update Driver” to execute the setup.



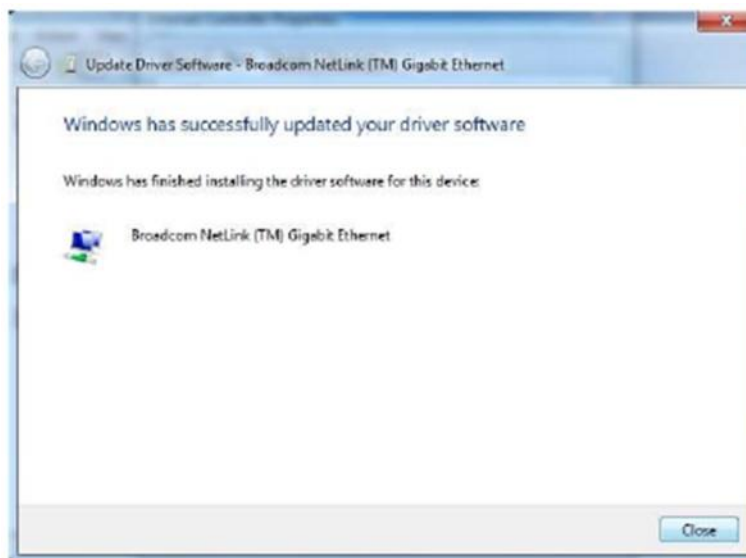
4. Click on “Browse my computer for driver software” to install the driver.



5. Choose the path to install the driver.



6. Click on “Close” and go on.



7. Follow the on-screen instructions to complete the installation.

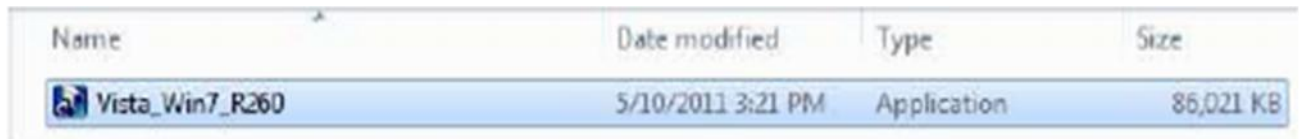
Audio Driver Installation

The ALC888 series are high-performance 7.1+2 Channel High Definition Audio Codecs providing ten DAC channels that simultaneously support 7.1 sound playback, plus 2 channels of independent stereo sound output (multiple streaming) through the front panel stereo outputs. The series integrates two stereo ADCs that can support a stereo microphone, feature Acoustic Echo Cancellation (AEC), Beam Forming (BF), and Noise Suppression (NS) technology.

12.1 Installation of the Audio Driver

Make sure which operating system you are using in the IA30 Motherboard before installing the Audio drivers. Follow the steps below to complete the installation of the Realtek ALC655 Audio drivers.

1. Insert the CD that comes with the motherboard. Open the file document “alc655_driver” > and click on “Vista_Win7_R260.exe” to execute the setup.



Name	Date modified	Type	Size
Vista_Win7_R260	5/10/2011 3:21 PM	Application	86,021 KB

2. Follow the on-screen Instructions.

LCD Display Operation


13.1 Simple Troubleshooting Guide

13.1.1 Brief FAQ

1. What if the display has no power after you push the power button?
 - a. Make sure your power resource is working and your power cord is securely connected into the plug-in.
 - b. If you have a power switch, please check to make sure the switch is in the on position.
 - c. Check all sources of power to make sure that they are properly installed and connected to allow for proper electricity flow.
2. What if there are strange lines on my LCD monitor when I shut down the PC?
 - a. You can use the auto-adjust function to adjust the horizontal/vertical phase and pixel frequency in order to solve this kind of problem.
3. What if my LCD monitor screen keeps blinking?
 - a. Please check you're VGA or DVI connector to make sure the connector is connected well.
 - b. You may also check your pins of the connector ensure that none are bent or missing.
4. Warning Signals:
 - a. If you see warning messages on your LCD screen, this means that the LCD display cannot receive a clean signal from the computer graphics card. Below are three kinds of Warning Signals. Please check the cable connections or contact your local dealer or our service center for more information.
 - 1. No Signal**
 - a. This message means that the LCD display has been powered on but it cannot receive any signal from the computer graphics card. Check all the power switches, power cables, and VGA/DVI signal cables.
 - 2. Going to Sleep**
 - b. The LCD display is under the power saving mode. The LCD display will enter power saving mode when experiencing a sudden signal disconnecting problem. The monitor can be activated by pressing any keyboard, triggering the mouse or touching the screen.
 - 3. Out of Range**
 - c. This message means that the signal of the computer graphic card is not compatible with the LCD display.

13.1.2 Additional Troubleshooting Chart:

If your monitor fails to operate correctly, consult the following chart for possible solution before calling for repairs:

Condition	Check Point
1. The picture does not appear	<ul style="list-style-type: none">• Check if the signal cable is firmly seated in the socket.• Check if the Power is ON at the computer• Check if the brightness control is at the appropriate position, not at the minimum.
2. The screen is not synchronized	<ul style="list-style-type: none">• Check if the signal cable is firmly seated in the socket.• Check if the output level matches the input level of your computer.• Make sure the signal timings of the computer system are within the specification of the monitor.• If your computer was working with a CRT monitor, you should check the current signal timing and turn off your computer before you connect the VGA Cable to this monitor.
3. The position of the screen is not in the center	<ul style="list-style-type: none">• Adjust the H-position, and V-position, or Perform the Auto adjustment.
4. The screen is too bright (too dark).	<ul style="list-style-type: none">• Check if the brightness or contrast control is at the appropriate position, not at the Maximum (Minimum).
5. The screen is shaking or waving	<ul style="list-style-type: none">• Press  (the Auto - adjustment control) to adjust.• Moving all objects which emit a magnetic field such as motor or transformer, away from the monitor. Check if the specific voltage is applied.• Check if the signal timing of the computer system is within the specification of monitor.

For more information, please go to the website <http://www.aispro.com> and contact technical support to help resolve your issue. You can also e-mail support at support@aispro.com. We will be happy to help.

Appendix

14.1 Cleaning the Monitor

1. Make sure the monitor is turned off.
2. Never spray or pour any liquid directly on the screen or case.
3. Wipe the screen with a clean, soft, lint-free cloth. This removes dust and other particles.
4. The display area is highly prone to scratching. Do not use Ketone type material (ex. Acetone), Ethyl Alcohol, Toluene, Ethyl Acid or Methyl Chloride to clear the panel. It may permanently damage the panel and void the warranty.
5. If it is still not clean enough, apply a small amount of non-ammonia, non-alcohol based glass cleaner onto a clean, soft, lint-free cloth, and wipe the screen.
6. Don't use water or oil directly on the monitor. If droplets are allowed to drop on the monitor permanent staining or discoloration may occur.

14.2 Touch Screen Driver Installation

The monitor is available with USB connection. The Linux kernel 2.6.x (32 bit & 64 bit) touch driver is located on the enclosed CD-ROM. HID for Windows® 7, VISTA , XP, 2000, ME, 98.

Please Note:

The system requires 15 seconds for Windows® 7 to install/uninstall the touch drivers. Do not turn power on/off or plug/unplug the USB cable.

Driver Install Instructions:

If you are using a PC running driver Linux kernel 2.6.x (32 bit & 64 bit), follow the instructions below:

1. Power on the PC.
2. Be sure the USB cable is connected from the PC to the LCD display.
3. Open the CD-ROM.
4. Follow the step-by-step instructions as shown on the pop-up windows.

If you are using a PC running Windows® XP Embedded, follow the instructions below:

Express:

1. Power on the computer.
2. Make sure that the USB cable is connected to the computer.
3. Be sure that your EWF is disabled. If your EWF is enabled, please disable the EWF by using the EWF Manager command.
4. Once the EWF is disabled click on the XP driver on the CD-ROM and follow the step-by-step instructions as shown on the pop-up windows.

Custom:

1. Power on the computer.
2. Make sure that the USB cable is connected to the computer.
3. Follow the step-by-step instructions found in the folder file on the CD-ROM.

If you are using a PC running Windows® CE, follow the instructions below:

1. Power on the computer.
2. Make sure that the USB cable is connected to the computer.
3. Using Platform Builder, build an image file by following the step-by-step instructions found in the folder file on the CD-ROM.

If you are using a PC running Linux or Apple® Mac OS, follow the instructions below:

1. Power on the computer.
2. Make sure that the USB cable is connected to the computer.
3. Follow the step-by-step instructions found in the folder file on the CD-ROM.

14.3 RMA (Return Material Authorization) Service

Before returning any goods, please:

1. Contact American Industrial Systems, inc. Technical Support and request for an RMA number (Return Material Authorization).
2. Describe the behavior or reason of unit failure in order to return. Any returns for credit are subject to a restocking fee.
3. Upon confirmation of a hardware failure or valid cause for return, AIS will provide a Return Merchandise Authorization (RMA).
4. Make sure to receive an RMA number from AIS before returning any merchandise. Clearly write or mark this number on the outside of the package you are returning. Any returns without an authorization will be refused and returned to you by the shipper.
5. When returning goods, include the name and telephone number of a person whom we can contact for further explanations if necessary. Where applicable, always include all duty papers and invoice(s) associated with the item(s) in question:
6. Ensure that the unit is properly packed in the original box. A product packaging manual will be included with the replacement Panel or can be emailed to you in advance. Please refer to it for the necessary instructions on how to appropriately package the panel computer being returned. Failure to do so may result in the panel shifting during transit -which may result in physical damage. Physical damage from improper packaging will void your system warranty.
7. Ship the panel back to the address provided on the RMA documentation, via an insured, pre-paid carrier.
8. Return unit must be received to address provided within 30 days, or invoice for full amount will be issued.